

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY



PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/JP2005/010199

International filing date (day/month/year)
27.05.2005

Priority date (day/month/year)
28.05.2004

International Patent Classification (IPC) or both national classification and IPC
F04B39/02, H02K1/22, H02K1/27

Applicant
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

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1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. II Priority

1. ☒ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43*bis*.1 and 64.1) is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	8
	No: Claims	1-7,9-12
Inventive step (IS)	Yes: Claims	8
	No: Claims	1-7,9-12
Industrial applicability (IA)	Yes: Claims	1-14
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Cited Documents

1. The following documents indicated in the international search report are referred to in this international preliminary examination report:

D1 : PATENT ABSTRACTS OF JAPAN vol. 2003, no. 07, 3 July 2003 (2003-07-03)
& JP 2003 083251 A (SANYO ELECTRIC CO LTD), 19 March 2003 (2003-03-19)

D2 : EP-A-0 587 402

D3 : GB 968 686

D4 : EP-A-1 283 581

D5 : EP-A-0 909 003

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

The document **D1** discloses a hermetically sealed compressor comprising:
a sealed vessel 20 filled with a coolant and a freezer oil; an electromotive element including a rotor 5 and a stator 40 and accommodated within the sealed vessel;
a compressing element accommodated within an upper region of the sealed vessel and adapted to be driven by the electromotive element, the compressing element being provided with a shaft 12, arranged so as to extend vertically and having the rotor 5 mounted thereon, and a bearing 13 for supporting the shaft 12:
a first oil pump 17 provided in a lower portion of the shaft 12 and opening into the freezer oil; a second oil pump 21 provided above the first oil pump and formed by a spiral groove, provided on an outer periphery of the shaft 12, and an inner peripheral wall surface of the rotor 5; and a third oil pump 18 provided above the second oil pump 21 and formed by a spiral groove, provided on the outer periphery of the shaft, and an inner peripheral surface of the bearing 13 (cf Fig 2).

Thus, the subject-matter of claim 1 is not novel (Article 33(2) PCT).

3. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 10 is not new in the sense of Article 33(2) PCT.

The document **D1** discloses a hermetically sealed compressor comprising: a sealed vessel filled 20 with a lubricant oil; an electromotive element including a rotor 5 and a stator 40 and accommodated within the sealed vessel 20; a compressing element accommodated within the sealed vessel 20 and adapted to be driven by the electromotive element, the compressing element being provided with a shaft 12, having an eccentric shaft portion and a main shaft portion, and a main bearing for supporting the shaft 12; a first oil pump 17 provided in a lower portion of the shaft 12 and opening into the lubricant oil; a second oil pump 21 provided above the first oil 17 pump and formed by a spiral groove, provided on an outer periphery of the shaft 12, and an inner peripheral wall surface of the rotor 5; and a third oil pump 18 provided above the second oil pump and formed by a spiral groove, provided on the outer periphery of the shaft 12, and an inner peripheral surface of the main bearing 13; wherein the electromotive element is a bipolar permanent magnet electric motor including a permanent magnet built in a rotor iron core of the rotor 5 (cf Fig 2).

Thus, the subject-matter of claim 1 is not novel (Article 33(2) PCT).

4. Independently of D1 the documents D2 and D3 disclose a hermetically sealed compressor having all the features of claim 1.
Therefore, D2 and D3 also destroy the novelty of this claim (Article 33(2) PCT).
5. The subject-matter of dependent claims 2-7,11-14 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to novelty and inventive step, in the light of the disclosure in document D1-D5.

Re Item VII

Certain defects in the international application

6. a) The Independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT with those features known in combination from the prior art D1 being placed in the preamble (Rule 6.3(b)(I) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- b) The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
- c) Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1- D5 are not mentioned in the description, nor are these documents identified therein.

Re Item VIII

Certain observations on the international application

7. Although claims 1 and 10 have been drafted as separate independent claims, claim 10 comprises of all the features of claim 1 and is therefore not appropriately formulated as a claim dependent upon the latter (Rule 6.4 PCT).